THE INFLUENCE OF SEROTONIN DEFICIENCY ON CHOICE DEFERRAL AND THE COMPROMISE EFFECT.

WEB APPENDICES

Web Appendix I

PRICE SCENARIOS (STUDIES 1 – 4)

Table A1
PRICE SCENARIOS

		Price in EUR					
	Study 1	**1**	**2**	**3**	**4**	**5**	**Replication of 2nd Scenario**
	Hazelnut spread						
L	Zentis Nusspli	1.43	1.48	1.53	1.58	1.63	1.48
M	Nutella	1.90	1.85	1.80	1.75	1.70	1.85
H	Nudossi	2.51	2.55	2.60	2.61	2.65	2.55
	Headphones						
L	Sony MDRZX100B	17.90	18.40	19.90	21.40	22.90	18.40
M	Sony MDRZX300B	35.90	34.40	32.90	31.40	29.90	34.40
H	Sony MDRZX600B	49.49	50.99	52.49	53.99	55.49	50.99
	Ketchup						
L	K classic	0.71	0.78	0.85	0.92	0.99	0.78
M	Kraft	1.52	1.45	1.38	1.31	1.24	1.45
H	Heinz	1.79	1.86	1.90	1.96	1.99	1.86
	Mulled wine						
L	Oma‘s	1.13	1.15	1.17	1.19	1.21	1.15
M	Christkindl	1.35	1.32	1.30	1.28	1.25	1.32
H	Nürnberger Christkindl Markt	2.24	2.26	2.28	2.30	2.20	2.26
	Study 2	**1**	**2**	**3**	**4**	**5**	**Replication of 2nd Scenario**
	Chips						
L	Gut & Günstig Paprika	1.04	1.09	1.14	1.19	1.24	1.09
M	Lorenz Chipsletten Paprika	1.50	1.45	1.40	1.35	1.30	1.45
H	Pringles Original	1.73	1.75	1.83	1.85	1.93	1.75
	Toothpaste						
L	Signal Kariesschutz	0.60	0.67	0.70	0.72	0.75	0.67
M	Odol Med3 Original	0.80	0.79	0.78	0.77	0.76	0.79
H	Elmex Sensitive	2.50	2.52	2.57	2.62	2.67	2.52
	Study3	**1**	**2**	**3**	**4**	**5**	**Replication of 2nd Scenario**
	Headphones						
L_2	Sony MDR-V150	17.60	18.70	19.60	21.70	22.60	18.70
L	Sony MDRZX300B	17.90	18.40	19.90	21.40	22.90	18.40
M	Sony MDRZX400B	35.90	34.40	32.90	31.40	29.90	34.40
	Hazelnut spread						
L_2	Schoko mac	1.43	1.43	1.58	1.53	1.68	1.43
L	Zentis Nusspli	1.43	1.48	1.53	1.58	1.63	1.48
M	Nutella	1.90	1.85	1.80	1.75	1.70	1.85

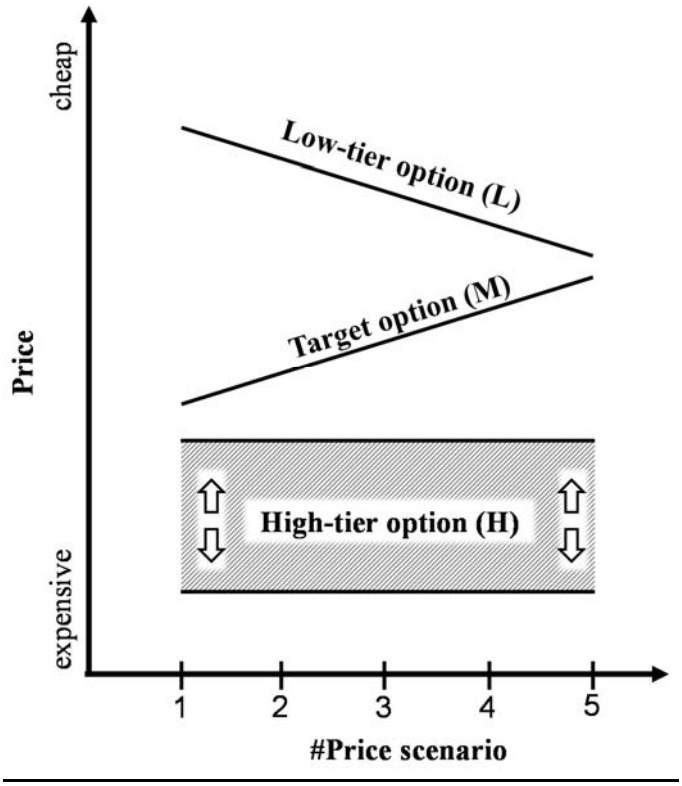
Table A1 *(Continued)*
PRICE SCENARIOS

		Price in EUR					
	Study 4a	**1**	**2**	**3**	**4**	**5**	**Replication of 2nd Scenario**
	Chips						
L	Gut & Günstig Paprika	1.04	1.08	1.12	1.16	1.20	1.08
M	Lorenz Chipsletten Paprika	1.43	1.39	1.35	1.31	1.27	1.39
H	Pringles Original	1.73	1.75	1.83	1.85	1.93	1.75
	Ketchup						
L	K classic	0.71	0.78	0.85	0.92	0.99	0.78
M	Kraft	1.52	1.45	1.38	1.31	1.24	1.45
H	Heinz	1.79	1.86	1.90	1.96	1.99	1.86
	Toothpaste						
L	Signal Kariesschutz	0.75	0.76	0.77	0.78	0.79	0.76
M	blend-a-med complete plus	0.85	0.84	0.83	0.82	0.81	0.84
H	Elmex Sensitive	2.45	2.52	2.4	2.55	2.35	2.52
	Study 4b	**1**	**2**	**3**	**4**	**5**	**Replication of 2nd Scenario**
	Hazelnut spread						
L	Zentis Nusspli	1.43	1.48	1.53	1.58	1.63	1.48
M	Nutella	1.90	1.85	1.80	1.75	1.70	1.85
H	Nudossi	2.51	2.55	2.60	2.61	2.65	2.55
	Mouthwashes						
L	K classic	0.86	1.01	1.16	1.31	1.46	1.01
M	Odol Med3	2.69	2.54	2.39	2.24	2.09	2.54
H	Listerine Total Care	3.56	3.60	3.65	3.50	3.46	3.60

Price scenarios across product categories were randomly allocated to different versions of the paper and pen questionnaire to avoid order and position effects. We matched these different versions between the placebo and the treatment groups to make both conditions comparable.

Figure A1 illustrates the design principles underlying the price scenarios used in all the studies. In each price scenario, the price of the compromise option M—which serves as the target option for our manipulation of the choice sets—was between the L and H prices. For each product category, we increased the trade-off difficulty between L and M from scenario 1 to scenario 5 by successively increasing the price for L and decreasing the price for M. This was done in the binary sets as well as the trinary sets. The prices for option H in the trinary sets were always higher than for L and M, but were not varied according to a clear trend (see Table A1).

Figure A1
ILLUSTRATION OF THE PRICE SCENARIO DESIGNS (STUDIES 1 – 4)



Web Appendix II

LOTTERY PROCEDURE – RISK ASSESSMENT IN THE FINANCIAL DOMAIN

To measure their risk attitude in the financial domain, subjects participated in a lottery choice task where they were shown a series of lottery pairs (Holt and Laury 2002). Subjects had to choose between a less risky lottery A (with a small payoff variance but a low initial expected value) and a risky lottery B (with a greater payoff variance but a high initial expected value). The lottery pairs included a systematic trade-off between the two lottery types, as the expected payoff of the less risky lottery A increased, whereas the expected payoff of the risky lottery B decreased from early to later decisions (Table A2). Accordingly, the subjects started by choosing lottery B (risky) based on the much higher initial expected value (189 points compared to 49 points for lottery A) in their first decisions and switched to the (less risky) A lottery in the later decisions when the expected value of lottery A approached that of lottery B (Holt and Laury 2002). The point where a subject switched from the risky lottery B to the less risky lottery A is a measure of his risk attitude: a risk-neutral individual is expected to solely base his decision on the expected payoffs of the two lotteries and is therefore assumed to switch from B to A exactly when the expected value of lottery A exceeds the expected value of lottery B. In contrast, a risk-averse decision maker is expected to switch earlier due to the smaller variance in the decision outcomes inherent in the A lotteries. The later a participant switches from the risky lottery B to the less risky lottery A, the less risk-averse this participant is. Incentive compatibility of the procedure was ensured by randomly drawing one of the participant's lottery decisions to become payoff relevant.

Table A2
LOTTERY DESIGN

Which lottery do you prefer in each row?					
Lottery	**Lottery A**	**Lottery B**	**A**	**B**	**indifferent**
1	[130, (10%); 40, (90%)]	[210, (90%); 0, (10%)]			
2	[130, (20%); 40, (80%)]	[210, (80%); 0, (20%)]			
3	[130, (30%); 40, (70%)]	[210, (70%); 0, (30%)]			
4	[130, (40%); 40, (60%)]	[210, (60%); 0, (40%)]			
5	[130, (50%); 40, (50%)]	[210, (50%); 0, (50%)]			
6	**[130, (60%); 40, (40%)]**	**[210, (40%); 0, (60%)]**			
7	[130, (70%); 40, (30%)]	[210, (30%); 0, (70%)]			
8	[130, (80%); 40, (20%)]	[210, (20%); 0, (80%)]			
9	[130, (90%); 40, (10%)]	[210, (10%); 0, (90%)]			

Note: Decision #6, printed in bold, describes the choice in which risk neutral individuals are expected to switch from lottery B to lottery A.
Participants were introduced that one point in all of the lotteries above equals five Euro cents.

Web Appendix III

PRE-ANALYSIS OF STUDIES 1 – 4

In *study 1*, we found no significant differences between subjects in the treatment and the placebo group in terms of age in years ($M_{Treatment}$=19.91, $SD_{Treatment}$=2.19 vs. $M_{Placebo}$=19.88, $SD_{Placebo}$=1.26; $t_{(45)}$=0.07, p=0.942), height in cm ($M_{Treatment}$=182.30, $SD_{Treatment}$=7.13 vs. $M_{Placebo}$=181.00, $SD_{Placebo}$=7.18; $t_{(45)}$=0.63, p=0.535), weight in kg ($M_{Treatment}$=77.70, $SD_{Treatment}$=9.77 vs. $M_{Placebo}$=73.58, $SD_{Placebo}$=8.89; $t_{(45)}$=1.51, p=0.138), and monthly net income in EUR ($M_{Treatment}$=433.18, $SD_{Treatment}$=288.48 vs. $M_{Placebo}$=486.43, $SD_{Placebo}$=259.95; $t_{(43)}$=-0.65, p=0.518). Following Fern and Monroe (1996), we also compared subjects' quality (versus price) orientation across all product categories, and subjects' aided brand awareness of all products, but found no significant differences. Subjects do not differ in terms of quality (versus price) orientation for hazelnut spread ($M_{Treatment}$=3.05, $SD_{Treatment}$=0.59 vs. $M_{Placebo}$=3.05, $SD_{Placebo}$=0.90; $t_{(Welch,\ 36.43)}$=0.09, p=0.993), headphones ($M_{Treatment}$=3.00, $SD_{Treatment}$=0.54 vs. $M_{Placebo}$=3.10, $SD_{Placebo}$=0.79; $t_{(Welch,\ 32.74)}$=-0.45, p=0.658), ketchup ($M_{Treatment}$=2.50, $SD_{Treatment}$=0.80 vs. $M_{Placebo}$=2.67, $SD_{Placebo}$=1.01; $t_{(44)}$=-0.62, p=0.540), and mulled wine ($M_{Treatment}$=2.75, $SD_{Treatment}$=0.86 vs. $M_{Placebo}$=2.44, $SD_{Placebo}$=0.86; $t_{(32)}$=1.04, p=0.307). Likewise, subjects do not differ in aided brand awareness as indicated by a series of Fisher's exact tests for hazelnut spread (p=1), headphones (p=0.609), ketchup (p=1.000), and mulled wine (p=0.898).

We tested whether ATD affected subjects' mood, which, in turn, could have an effect on their buying behavior (Gardner 1985; Strack, Werth', and Deutsch 2006). We first analyzed the MDMQ dimensions' internal consistency reliabilities, which yielded satisfactory values between 0.78 (calmness) and 0.94 (wakefulness). Evaluation of the construct measures' convergent validity yielded average variance extracted values of between 0.47 (wakefulness) and 0.71 (calmness). Furthermore, discriminant validity was established as all three dimensions shared more variance with their associated items than with the other two

constructs (Fornell and Larcker 1981). Next, we compared the MDMQ scores within the subjects (pre- versus post-treatment exposure) and between the two groups. To test for differences, we established mixed-effect general linear models, using a separate model for each of the three MDMQ dimensions.

We defined the pleasantness scores of the pre- and post-exposure as a within-subjects factor and the experimental condition (treatment vs. placebo) as a between-subjects factor. We built analogous models for the wakefulness and calmness dimensions. The results revealed no significant differences between the treatment and placebo groups (pleasantness: $F_{(1;44)} \approx 0.12$, $p=0.735$; wakefulness: $F_{(1;44)} \approx 1.05$, $p=0.312$; calmness: $F_{(1;42)} \approx 0.29$, $p=0.595$). Similarly, there were no significant differences between pre- and post-exposure (within) in the pleasantness ($F_{(1;44)} \approx 0.17$, $p=0.682$) and wakefulness ($F_{(1;44)} \approx 2.08$, $p=0.156$) dimensions, and only a slight significance at the 10 percent level in the calmness ($F_{(1;42)} \approx 3.48$, $p=0.069$) dimension. Finally, we found no significant differences in the change of mood dimensions between the treatment and the placebo groups as measured by the treatment x (pre- vs. post) MDMQ dimensions (pleasantness: $F_{(1;44)} \approx 0.52$, $p=0.475$; wakefulness: $F_{(1;44)} \approx 1.61$, $p=0.211$; calmness: $F_{(1;42)} \approx 1.15$, $p=0.290$). Additionally, the results did not reveal any significant differences in the general risk attitudes between the treatment and placebo groups as measured by the risk-attitude scale ($M_{Treatment} = 6.04$, $SD_{Treatment} = 1.87$ vs. $M_{Placebo} = 6.25$, $SD_{Placebo} = 1.45$; $t_{(45)} = -0.42$; $p = 0.674$). Congruently, we found no significant differences in financial risk taking (Mann-Whitney-U = 247.5; $p = 0.539$). The median switching point from the more risky lottery B to the less risky lottery A was earlier than expected for risk-neutral individuals in both groups, indicating risk-averse subjects (Web Appendix II). In sum, ATD did not have an influence on subjects' mood or risk attitude / risk taking behavior.

The pre-analysis in *study 2* was analogous to that in study 1. In terms of age in years ($M_{Treatment}=21.51$, $SD_{Treatment}=2.37$ vs. $M_{Placebo}=20.94$, $SD_{Placebo}=1.63$; $t_{(84.92\text{-Welch})}=-1.391$ $p=0.168$), height in cm ($M_{Treatment}=182.18$, $SD_{Treatment}=7.09$ vs. $M_{Placebo}=181.94$,

$SD_{Placebo}$=6.86; $t_{(96)}$=-0.174, p=0.862), weight in kg ($M_{Treatment}$=80.88, $SD_{Treatment}$=12.11 vs. $M_{Placebo}$=79.29, $SD_{Placebo}$=13.46; $t_{(96)}$=-0.615, p=0.540), monthly net income in EUR ($M_{Treatment}$=446.15, $SD_{Treatment}$=251.11 vs. $M_{Placebo}$=506.31, $SD_{Placebo}$=244.94; $t_{(94)}$=1.19, p=0.238) or general risk attitude ($M_{Treatment}$=5.80, $SD_{Treatment}$=2,02 vs. $M_{Placebo}$=5.80, $SD_{Placebo}$=1.72; $t_{(96)}$=0.00, p=1), we again did not find any significant differences between the treatment and placebo groups. Furthermore, we found no significant differences in quality vs. price orientation for chips ($M_{Treatment}$=2.55, $SD_{Treatment}$=0.79 vs. $M_{Placebo}$=2.52, $SD_{Placebo}$=0.90; $t_{(95)}$=-0.18, p=0.861) and toothpaste ($M_{Treatment}$=2.71, $SD_{Treatment}$=0.58 vs. $M_{Placebo}$=2.73, $SD_{Placebo}$=0.64; $t_{(95)}$=0.12, p=0.905) as well as aided brand awareness (chips p=0.987; toothpaste p=0.963).

In *study 3*, we again found no significant differences between the subjects in the treatment and placebo groups in terms of height in cm ($M_{Treatment}$=182.08, $SD_{Treatment}$=7.19 vs. $M_{Placebo}$=182.84, $SD_{Placebo}$=6.57;$t_{(49)}$=0.40, p=0.694), weight in kg ($M_{Treatment}$=83.85, $SD_{Treatment}$=13.33 vs. $M_{Placebo}$=84.84, $SD_{Placebo}$=14.79; $t_{(49)}$=0.25, p=0.802), or monthly net income in EUR ($M_{Treatment}$=457.69, $SD_{Treatment}$=221.64 vs. $M_{Placebo}$=524.20, $SD_{Placebo}$=234.70; $t_{(49)}$=-0.65, p=0.518). Participants in the treatment group were slightly older ($M_{Treatment}$=22.54, $SD_{Treatment}$=1.88 vs. $M_{Placebo}$=21.60, $SD_{Placebo}$=1.68; $t_{(49)}$=-1.88, p=0.067) but we judge this small difference (less than one year) as negligible. We found no significant differences with respect to the consumer-related variables quality orientation versus price orientation for hazelnut spread ($M_{Treatment}$=3.00, $SD_{Treatment}$=0.93 vs. $M_{Placebo}$=3.00, $SD_{Placebo}$=0.75; $t_{(48)}$=0, p=1), and for headphones ($M_{Treatment}$=2.83, $SD_{Treatment}$=1.01 vs. $M_{Placebo}$=3.18, $SD_{Placebo}$=0.73; $t_{(44)}$=1.331, p=0.190) as well as aided brand awareness for all the products (hazelnut spread p=0.982; headphones p=0.490). Finally, we found no differences in the general risk attitudes scale ($M_{Treatment}$=5.58, $SD_{Treatment}$=2.16 vs. $M_{Placebo}$=5.36, $SD_{Placebo}$=1.87; $t_{(49)}$=-0.38, p=0.703).

Also in *study 4*, we did not detect any significant differences between the subjects in the treatment and placebo groups in terms of height in cm ($M_{Treatment}$=181.08, $SD_{Treatment}$=6.40

vs. $M_{Placebo}$=184.79, $SD_{Placebo}$=7.82;$t_{(47)}$=1.39, p=0.171), weight in kg ($M_{Treatment}$=81.00, $SD_{Treatment}$=11.57 vs. $M_{Placebo}$=85.83, $SD_{Placebo}$=12.25; $t_{(47)}$=1.42, p=0.162), monthly net income in EUR ($M_{Treatment}$=603.75, $SD_{Treatment}$=205.70 vs. $M_{Placebo}$=674.58, $SD_{Placebo}$=266.88; $t_{(46)}$=1.03, p=0.308), or age in years ($M_{Treatment}$=24.56, $SD_{Treatment}$=2.71 vs. $M_{Placebo}$=25.04, $SD_{Placebo}$=2.94; $t_{(47)}$=0.60, p=0.554). Relatedly, subjects across experimental groups did not differ significantly in terms of consumer-related variables like quality orientation versus price orientation for potato chips ($M_{Treatment}$=2.60, $SD_{Treatment}$=0.76 vs. $M_{Placebo}$=2.42, $SD_{Placebo}$=0.93; $t_{(47)}$=-0.76, p=0.453), for ketchup ($M_{Treatment}$=2.21, $SD_{Treatment}$=0.78 vs. $M_{Placebo}$=2.42, $SD_{Placebo}$=1.02; $t_{(46)}$=0.80, p=0.430), toothpaste ($M_{Treatment}$=2.46, $SD_{Treatment}$=0.72 vs. $M_{Placebo}$=2.50, $SD_{Placebo}$=0.59; $t_{(46)}$=0.22, p=0.828), hazelnut spread ($M_{Treatment}$=3.08, $SD_{Treatment}$=0.70 vs. $M_{Placebo}$=3.00, $SD_{Placebo}$=0.59; $t_{(47)}$=-0.43, p=0.669), or mouthwashes ($M_{Treatment}$=2.20, $SD_{Treatment}$=1.00 vs. $M_{Placebo}$=2.57, $SD_{Placebo}$=0.90; $t_{(46)}$=1.33, p=0.191). Subjects did also not differ with respect to aided brand awareness for all tested products (chips p=0.639; ketchup p=1; toothpaste p=0.827, hazelnut spread p=1; mouthwashes p=0.722). Finally, we found no significant differences in general risk attitudes ($M_{Treatment}$=5.68, $SD_{Treatment}$=1.95 vs. $M_{Placebo}$=5.21, $SD_{Placebo}$=2.02; $t_{(47)}$=-0.83, p=0.410).

Web Appendix IV

COMPLETE CHOICE DATA (STUDIES 1 – 4)

Table A3
STUDY 1: OBSERVED CHOICES (WITHIN-SUBJECTS DESIGN)

		Purchase counts[a] *(%)*									
		Total		Hazelnut spread		Headphones		Ketchup		Mulled Wine	
		CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$
Placebo (n=24)	L	58 *(38.16)*	56 *(30.94)*	12 *(24.49)*	10 *(18.87)*	15 *(42.86)*	12 *(36.36)*	27 *(69.23)*	32 *(55.17)*	4 *(13.79)*	2 *(5.41)*
	M	94 *(61.84)*	95 *(52.49)*	37 *(75.51)*	39 *(73.58)*	20 *(57.14)*	16 *(48.48)*	12 *(30.77)*	14 *(24.14)*	25 *(86.21)*	26 *(70.27)*
	H	-	30 *(16.57)*	-	4 *(7.55)*	-	5 *(15.15)*	-	12 *(20.69)*	-	9 *(24.32)*
	Buy	152 *(31.67)*	181 *(37.71)*	49 *(40.83)*	53 *(44.17)*	35 *(29.17)*	33 *(27.50)*	39 *(32.50)*	58 *(48.33)*	29 *(24.17)*	37 *(30.83)*
	No-Buy	328 *(68.33)*	299 *(62.29)*	71 *(59.17)*	67 *(55.83)*	85 *(70.83)*	87 *(72.50)*	81 *(67.50)*	62 *(51.67)*	91 *(75.83)*	83 *(69.17)*
Treatment (ATD) (n=23)	L	33 *(34.74)*	39 *(41.94)*	3 *(14.29)*	6 *(27.27)*	12 *(40.00)*	13 *(54.17)*	18 *(90.00)*	19 *(90.48)*	0 *(0)*	1 *(3.85)*
	M	62 *(65.26)*	53 *(56.99)*	18 *(85.71)*	16 *(72.73)*	18 *(60.00)*	11 *(45.83)*	2 *(10.00)*	1 *(4.76)*	24 *(100)*	25 *(96.15)*
	H	-	1 *(1.08)*	-	0 *(0)*	-	0 *(0)*	-	1 *(4.76)*	-	0 *(0)*
	Buy	95 *(20.65)*	93 *(20.22)*	21 *(18.26)*	22 *(19.13)*	30 *(26.09)*	24 *(20.87)*	20 *(17.39)*	21 *(18.26)*	24 *(20.87)*	26 *(22.61)*
	No-Buy	365 *(79.35)*	367 *(79.78)*	94 *(81.74)*	93 *(80.87)*	85 *(73.91)*	91 *(79.13)*	95 *(82.61)*	94 *(81.74)*	91 *(79.13)*	89 *(77.39)*

[a] Each respondent contributed 40 decisions for the analysis of this table, ten in every product category (five in the binary stage and five in the trinary stage).

Table A4
STUDY 2: OBSERVED CHOICES (BETWEEN-SUBJECTS DESIGN)

		Purchase counts[a] *(%)*					
		Total		Chips		Toothpaste	
		CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$
Placebo (binary: n=24; trinary: n=25)	L	36 *(31.86)*	5 *(3.68)*	17 *(47.22)*	4 *(7.14)*	19 *(24.68)*	1 *(1.25)*
	M	77 *(68.14)*	96 *(70.59)*	19 *(52.78)*	19 *(33.93)*	58 *(75.32)*	77 *(96.25)*
	H	-	35 *(25.74)*	-	33 *(58.93)*	-	2 *(2.50)*
	Buy	113 *(47.08)*	136 *(54.40)*	36 *(30.00)*	56 *(44.80)*	77 *(64.17)*	80 *(64.00)*
	No-Buy	127 *(52.92)*	114 *(45.60)*	84 *(70.00)*	69 *(55.20)*	43 *(35.83)*	45 *(36.00)*
Treatment (ATD) (binary: n=23; trinary: n=26)	L	25 *(28.09)*	16 *(12.70)*	14 *(48.28)*	5 *(10.42)*	11 *(18.33)*	11 *(14.10)*
	M	64 *(71.91)*	68 *(53.97)*	15 *(51.72)*	16 *(33.33)*	49 *(81.67)*	52 *(66.67)*
	H	-	42 *(33.33)*	-	27 *(56.25)*	-	15 *(19.23)*
	Buy	89 *(38.7)*	126 *(48.46)*	29 *(25.22)*	48 *(36.92)*	60 *(52.17)*	78 *(60.00)*
	No-Buy	141 *(61.30)*	134 *(51.54)*	86 *(74.78)*	82 *(63.08)*	55 *(47.83)*	52 *(40.00)*

[a] Each respondent contributed ten decisions for the analysis of this table, five in every product category .

Table A5
STUDY 3: OBSERVED CHOICES (BETWEEN-SUBJECTS DESIGN)

Purchase counts *(%)*

	Total		Hazelnut spread		Headphones	
	Placebo (n=25)	Treatment (ATD) (n=26)	Placebo (n=25)	Treatment (ATD) (n=26)	Placebo (n=25)	Treatment (ATD) (n=26)
L_2	14 *(14.29)*	21 *(30.00)*	7 *(10.77)*	20 *(40.00)*	7 *(21.21)*	1 *(5.00)*
L	36 *(36.73)*	6 *(8.57)*	20 *(30.77)*	3 *(6.00)*	16 *(48.48)*	3 *(15.00)*
M	48 *(48.98)*	43 *(61.43)*	38 *(58.46)*	27 *(54.00)*	10 *(30.30)*	16 *(80.00)*
Buy	98 *(39.20)*	70 *(26.92)*	65 *(52.00)*	50 *(38.46)*	33 *(26.40)*	20 *(15.38)*
No-Buy	152 *(60.80)*	190 *(73.08)*	60 *(48.00)*	80 *(61.54)*	92 *(73.60)*	110 *(84.62)*

[a] Each respondent contributed ten decisions for the analysis of this table, five in every product category.

Table A6
STUDY 4A: OBSERVED CHOICES (WITHIN-SUBJECTS DESIGN)

		Purchase counts[a] *(%)*							
		Total		Chips		Ketchup		Toothpaste	
		CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$	CS_{binary}	$CS_{trinary}$
Placebo (n=24)	L	135 *(37.6)*	104 *(28.97)*	45 *(37.5)*	28 *(23.33)*	73 *(60.83)*	62 *(51.67)*	17 *(14.29)*	14 *(11.76)*
	M	224 *(62.4)*	193 *(53.76)*	75 (62.5)	52 (43.33)	47 (39.17)	41 (34.17)	102 (85.71)	100 (84.03)
	H	-	62 (17.27)	-	40 (33.33)	-	17 (14.17)	-	5 (4.2)
Treatment (ATD) (n=25)	L	136 (36.27)	123 (32.8)	44 (35.2)	43 (34.4)	79 (63.2)	69 (55.2)	13 (10.4)	11 (8.8)
	M	239 (63.73)	188 (50.13)	81 (64.8)	50 (40)	46 (36.8)	33 (26.4)	112 (89.6)	105 (84)
	H	-	64 (17.07)	-	32 (25.6)	-	23 (18.4)	-	9 (7.2)

[a] Each respondent contributed 30 decisions for the analysis of this table, ten in every product category (five in the binary stage and five in the trinary stage).

Web Appendix V
ADDITIONAL ANALYSES (STUDIES 1 – 4)

Analysis of Choice Deferral

To account for the multiple observations per respondent with regard to our hypothesis about choice deferral in studies 1–3, we estimated mixed-effect logit models using a dependent binary decision variable (1=buy, 0=no buy). The models accounted for the data's nested multilevel structure by including a respondent-specific random intercept together with a nested product group-specific random effect intercept. The independent fixed effect predictor was coded 1 if a subject belongs to the placebo group and 0 if belonging to the treatment group. In accordance with our directional hypothesis, we expected the treatment's coefficient to be positive and significant, indicating that the subjects in the placebo group are less likely to defer product decisions. Our analyses show that this holds for *study 1* results (ß = 2.57, one-sided p = 0.040), for *study 2* results (ß=1.12, one-sided p<0.001), as well as *study 3* results (ß=2.15, one-sided p=0.044).

Analysis of the Compromise Effect

For the within-subjects designs (*studies 1* and *4a)* we conducted a further robustness check to account for multiple decisions per respondent. We averaged all the switching patterns of each respondent, giving us the relative frequencies of a participant's switches from L to M after adding H. This measure of the within-subjects compromise effect ranges from 0 (if a participant did not switch at all) to 1 (if switching was observed in all decision instances). Next, we evaluated if the mean tendency to switch from L to M is significantly different from zero. Our analysis of *study 1* data reveals that this is the case for the placebo group (mean difference = 0.017 (SD = 0.043), $t_{(23)} = 1.881$; p = 0.037), but not for the treatment group (mean difference = 0.000, (SD = 0.000) $t_{(22)} = 0$; p = 1.000). The difference between both experimental groups is also significant ($t_{(23\text{-Welch})} = -1.881$; p = 0.037). Our analogous, analysis of *study 4a* reveals that

the mean tendency to switch from L to M is significantly different from zero for the placebo group (mean difference = 0.064 (SD = 0.080), $t_{(23)} = 3.922$; p = 0.001) and also for the treatment group (mean difference = 0.024, (SD = 0.047) $t_{(24)} = 2.571$; p = 0.017). Consistent with our hypotheses, the within-subjects compromise effect is significantly more pronounced in the placebo group compared to the treatment group ($t_{(47)} = 2.146$; p = 0.037).

As a further robustness check of *studies 2* and *4b* results, we used a similar approach as for *studies 1* and *4a*, but accounted for the fact that it was not possible to aggregate switches in a between-subjects design setting. Therefore, we averaged the M and L decisions of every respondent, which yielded the respondent-specific rates for choosing L and M. Next, we computed a respondent-specific index for the attractiveness of M over L by subtracting the L options' rate from the M options' rate. This measure is negative if a respondent—on average—prefers L to M, and positive if M is more often preferred to L. In accordance with our hypotheses, we found that option M was significantly more attractive in the trinary sets than in the binary sets in the placebo group in study 2 ($Mean_{Trinary}$ = 0.36 (0.31) vs. $Mean_{Binary}$ = 0.17 (0.44), $t_{(47)} = -1.76$, p = 0.042), whereas this is not the case in the treatment group ($Mean_{Trinary}$ = 0.20 (0.28) vs. $Mean_{Binary}$ = 0.17 (0.37), $t_{(47)} = -0.32$, p = 0.374). The same result holds for an equivalent analysis of the data of *study 4b* (placebo group: $Mean_{Trinary}$ = 0.62 (0.42) vs. $Mean_{Binary}$ = -0.12 (0.56), $t_{(22)} = -3.64$, p = 0.001; treatment group: $Mean_{Trinary}$ = 0.16 (0.45) vs. $Mean_{Binary}$ = 0.03 (0.14), $t_{(14.60)} = -0.98$, p = 0.346).

Analysis of Order Effects.

We also tested for order effects in subjects' decisions from the earlier to the later price scenarios as described in Web Appendix I. For this purpose, we analyzed the development of the choice shares of the compromise option M as well as the no-buy option. As expected, we observe higher choice shares for the target option M in later scenarios as M becomes cheaper over time. This trend applies to both, binary and trinary sets and, therefore, does not cofound

the results interpretation. Beyond this trend, our analyses did not indicate any systematic effects across the different price scenarios and studies regarding subjects' choices of the compromise option or the no-buy option. Likewise, we found no interaction of potential order effects with the ATD treatment.

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